

Del 100

# Work Order ID 70865

Thursday, June 16, 2011 11:56:21 AM



Page 1

Item ID: D3183-045

Accept



Setup Start



Revision ID:

Stop



Item Name: Bearing Assembly

Start Date: 6/16/2011 Start Qty: 30.00



Cust Item ID:

Required Date: 6/23/2011 Req'd Qty: 30.00



Customer:

Reference:

Approvals:

Process Plan:

Date: 16/6/11 Tooling:

Date:

Run Start



QC: \_\_\_\_\_

Date: \_\_\_\_\_ SPC (Y/N):

Date: \_\_\_\_\_

Stop



Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

Draw Nbr

Revision Nbr

D3183

Rev C1

100



Hardinge CNC LATHE SMALL

0.00

30 6

Hardinge

Hardinge CNC Lathe Small

Memo

Turn D3183-9 Cap as per Folio FA388□Deburr

0.00

11/6/23

110



QC2- Inspect parts off machine FAI/FAIB

0.00

30

QC

Quality Control

Memo

0.00

11/6/23

120



QC8- Inspect parts - second check

0.00

11/6/23

QC

Quality Control

Memo

0.00

30

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_  
 Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date &amp; initial all entries

**Work Order ID 70865**

Thursday, June 16, 2011 11:56:22 AM



Page 2

Item ID: D3183-045

Accept



Setup

Start



Revision ID:

Item Name: Bearing Assembly

Stop



Start Date: 6/16/2011 Start Qty: 30.00



Cust Item ID:

Required Date: 6/23/2011 Req'd Qty: 30.00



Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run

Start



QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/  
Work Center ID

130

Operation  
DescriptionSet Up/  
Run Hours

Tool ID

Tool #

Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

0.00

Small Fab

0.00

Memo

Small Fab

Press D3183-5 Bearing into D3183-9 Cap as per Dwg D3183.

140



QC5- Inspect part completeness to step on W/O

0.00

8 block 74

0.00

Memo

Quality Control

QC5-  
8 block 74  
X30

150

Identify as per dwg & Stock Location: ST236

0.00

Memo

0.00

Packaging

Packaging

ST236  
X30  
1406124

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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NOTE: Date & initial all entries

**Work Order ID 70865**

Thursday, June 16, 2011 11:56:22 AM

Page 3

Item ID: D3183-045

Accept



Setup

Start



Revision ID:

Item Name: Bearing Assembly

Stop



Start Date: 6/16/2011 Start Qty: 30.00



Cust Item ID:

Required Date: 6/23/2011 Req'd Qty: 30.00



Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_

Date: \_\_\_\_\_

Tooling: \_\_\_\_\_

Date: \_\_\_\_\_

Run

Start



QC: \_\_\_\_\_

Date: \_\_\_\_\_

SPC (Y/N): \_\_\_\_\_

Date: \_\_\_\_\_

Stop

Sequence ID/  
Work Center ID

160



QC

Quality Control

Operation  
Description

QC21- Final Inspection - Work Order Release

Set Up/  
Run Hours

0.00

Tool ID

Tool #

Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

11/06/2011  
MF

Memo

0.00

11-06-24

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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NOTE: Date & initial all entries

# Picklist Print

Page 1

Thursday, June 16, 2011 11:56:32 AM

Work Order ID: 70865



Parent Item: D3183-045



Parent Item Name: Bearing Assembly

Start Date: 6/16/2011

Required Date: 6/23/2011

Start Qty: 30.00

Required Qty: 30.00

Comments: IPP A□04.02.18□New issue□KJ/DS□

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

D3183-5

Manufactured

No

110

Each

7.0000

1

30

Bearing

Location	Loc Qty	Loc Code
----------	---------	----------

ST236

7

67529

1

68933

6

MDELRRINR1.000

Purchased

No

130

f

6.8000

0.0333

1.051579

Delrin Round Bar 1"

Location	Loc Qty	Loc Code
----------	---------	----------

MAT055

6.8

11.7985

6.8

1.2

DT

1.2

DT

W/O:		WORK ORDER CHANGES					
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Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_  
 Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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NOTE: Date & initial all entries

DART AEROSPACE LTD	Work Order:	70865
Description: Cap	Part Number:	D3183-9
Inspection Dwg: D3183	Rev: C1	Page 1 of 1

## FIRST ARTICLE INSPECTION CHECKLIST

## X First Article      Prototype

Measured by: <u>S</u>	Audited by: <u>DP</u>	Prototype Approval: N/A
Date: 11-6-23	Date: 15-6-23	Date: N/A

Rev	Date	Change	Revised by	Approved
A	04.04.20	New Issue (P/O D3183-045)	KJ/RF	<i>[Signature]</i>
B	06.03.09	Dimension Ø0.830 was Ø0.850	KJ/JLM	<i>[Signature]</i>

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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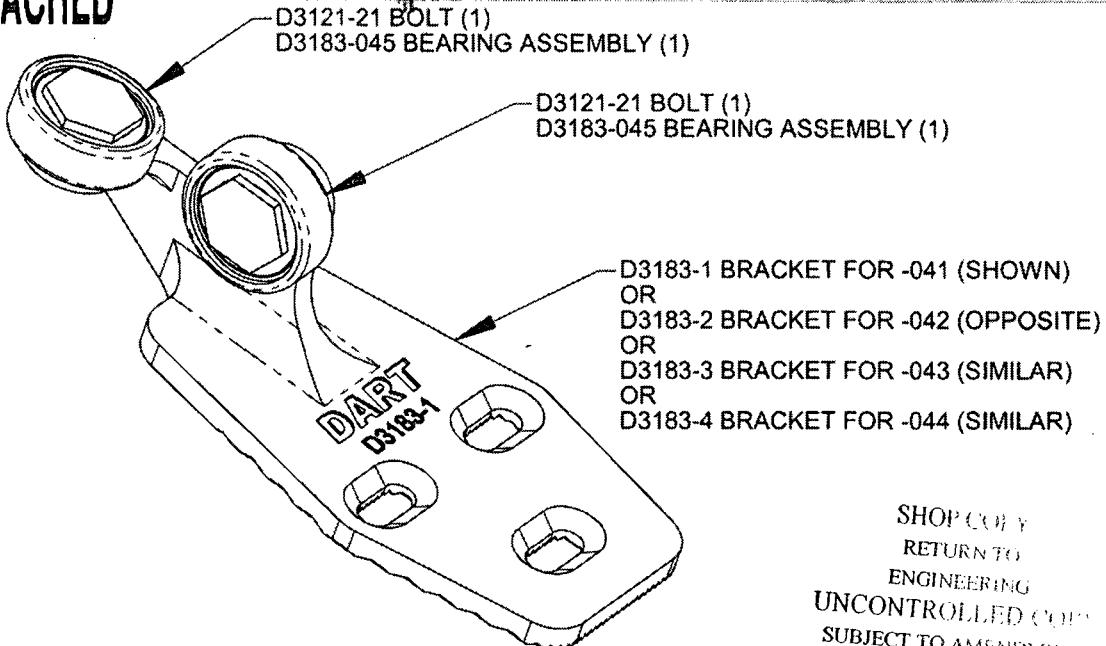
NOTE: Date & initial all entries



03/03/03  
COPY ISSUED

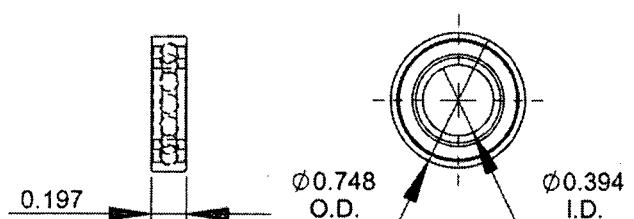
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CHECKED	APPROVED	DRAWING NO.	REV. C
		D3183	SHEET 1 OF 4
DATE	04.02.17	TITLE	SCALE 1:1

RELEASED  
04.03.01  
DEO ATTACHED



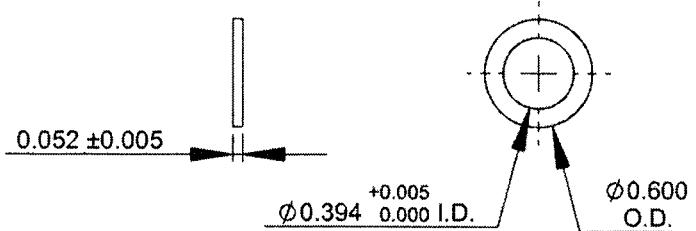
D3183-041 BRACKET ASSEMBLY (SHOWN)  
D3183-042 BRACKET ASSEMBLY (OPPOSITE)  
D3183-043 BRACKET ASSEMBLY (SIMILAR)  
D3183-044 BRACKET ASSEMBLY (SIMILAR)

SHOP COPY  
RETURN TO  
ENGINEERING  
UNCONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER  
NO. 1005  
PL 11-06-16



#### D3183-5 BEARING: SPECIFICATION CONTROL DRAWING

- 1) SINGLE ROW, DEEP GROOVE, CONRAD TYPE, SHIELDED
- 2) POSSIBLE SUPPLIER: NSK P/N 6800ZZ
- 3) ALL DIMENSIONS ARE IN INCHES



#### D3183-7 WASHER

- 1) MATERIAL: AISI 303 ROUND BAR (M303R) ANNEALED
- 2) BREAK ALL SHARP EDGES 0.005 TO 0.010
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES

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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_  
 Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

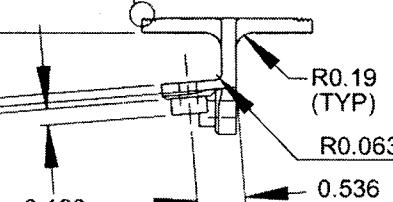
W07085



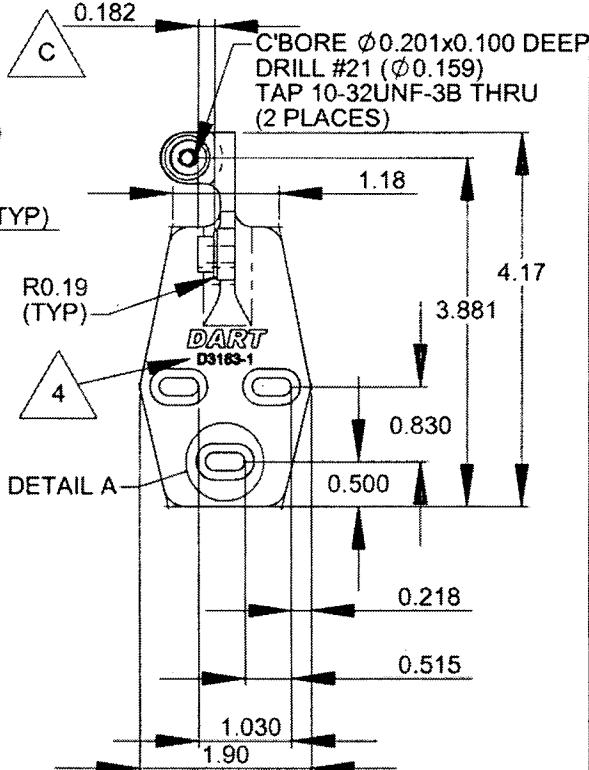
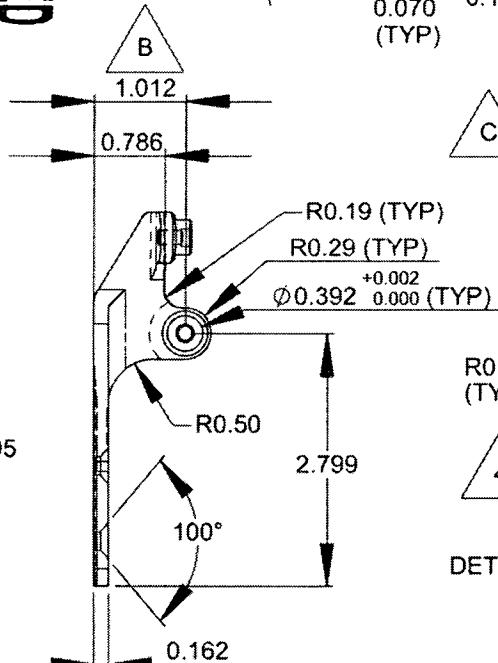
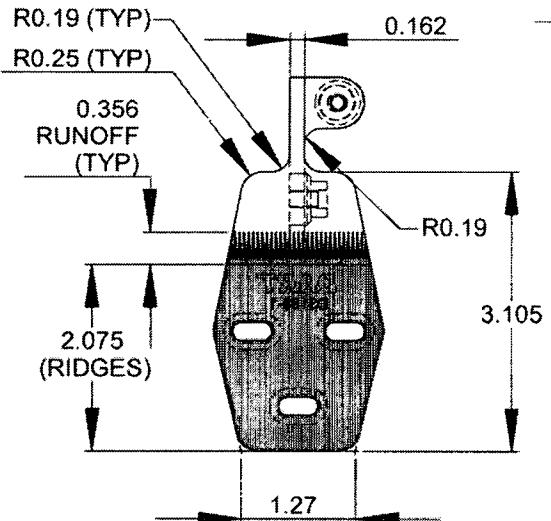
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CHECKED	APPROVED	HAWKESBURY, ONTARIO, CANADA	
		DRAWING NO.	
		D3183	
DATE	REV. C		SHEET 2 OF 4
04.02.17	TITLE		SCALE
	BRACKET ASSEMBLY		1:2

RELEASED

04-02-17



DETACHED



D3183-1 BRACKET SHOWN  
D3183-2 BRACKET OPPOSITE

- 1) D3183-1 CAN BE MADE FROM D3183-3  
D3183-2 CAN BE MADE FROM D3183-4
- 2) MATERIAL: 17-4 SS PER AMS 5604/5643  
(REF DART SPEC. M17-4-B)  
MIN ULTIMATE STRENGTH = 150 ksi  
MIN YIELD STRENGTH = 100 ksi
- 3) BREAK ALL SHARP EDGES 0.005 TO 0.015
- 4) ENGRAVE DART P/N & LOGO AS SHOWN
- 5) TOLERANCES ARE PER DART QSI 018 UNLESS  
OTHERWISE NOTED
- 6) ALL DIMENSIONS ARE IN INCHES

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_  
 Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

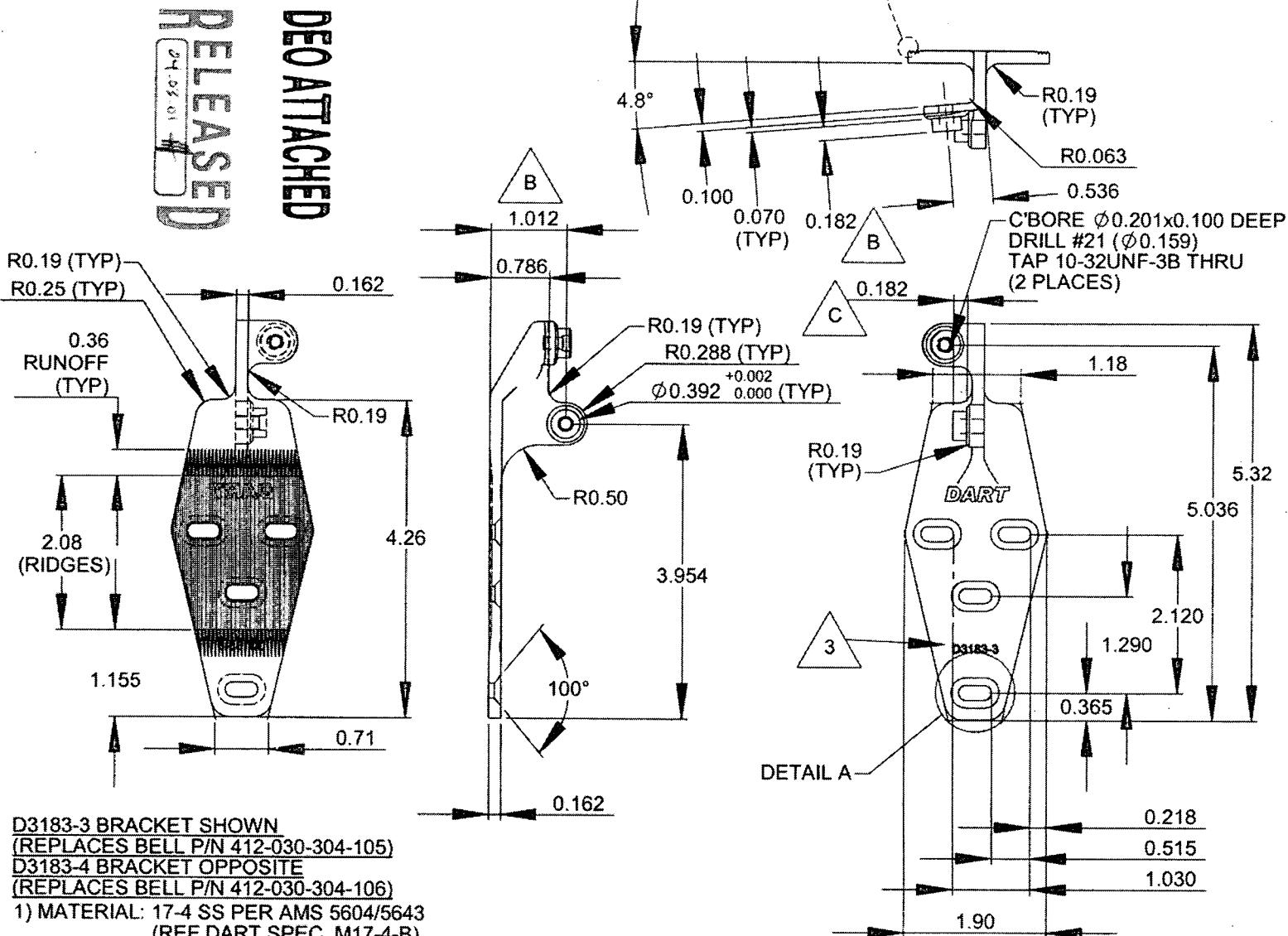
NOTE: Date & initial all entries

46070865



DESIGN	DRAWN BY	DART AEROSPACE LTD	
CHECKED	APPROVED	HAWKESBURY, ONTARIO, CANADA	
		DRAWING NO.	
		D3183	REV. C
DATE	04.02.17	TITLE	SHEET 3 OF 4
		BRACKET ASSEMBLY	SCALE

SEE DETAIL B



D3183-3 BRACKET SHOWN  
(REPLACES BELL P/N 412-030-304-105)

D3183-4 BRACKET OPPOSITE  
(REPLACES BELL P/N 412-030-304-106)

1) MATERIAL: 17-4 SS PER AMS 5604/5643  
(REF DART SPEC. M17-4-B)  
MIN ULTIMATE STRENGTH = 150 ksi  
MIN YIELD STRENGTH = 100 ksi

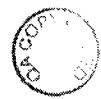
2) BREAK ALL SHARP EDGES 0.005 TO 0.015  
3) ENGRAVE DART P/N & LOGO AS SHOWN  
4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED  
5) ALL DIMENSIONS ARE IN INCHES

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

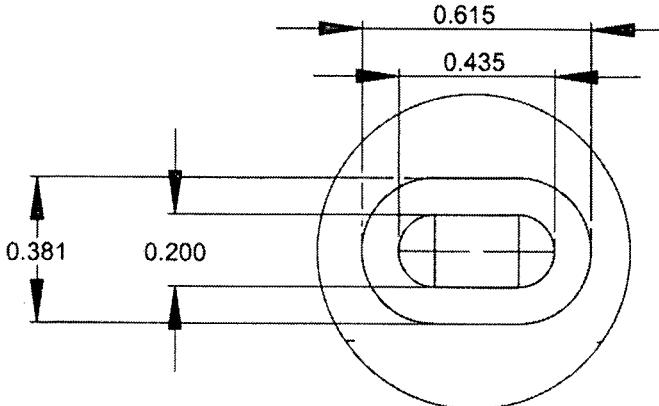
Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_  
 Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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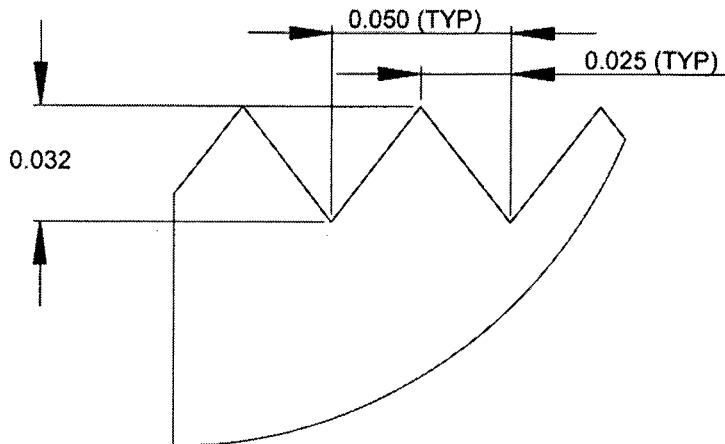
DESIGN	DRAWN BY	DART AEROSPACE LTD	
CHECKED	APPROVED	HAWKESBURY, ONTARIO, CANADA	
		DRAWING NO.	REV. C
		D3183	SHEET 4 OF 4
DATE	04.02.17	TITLE	SCALE
		BRACKET ASSEMBLY	



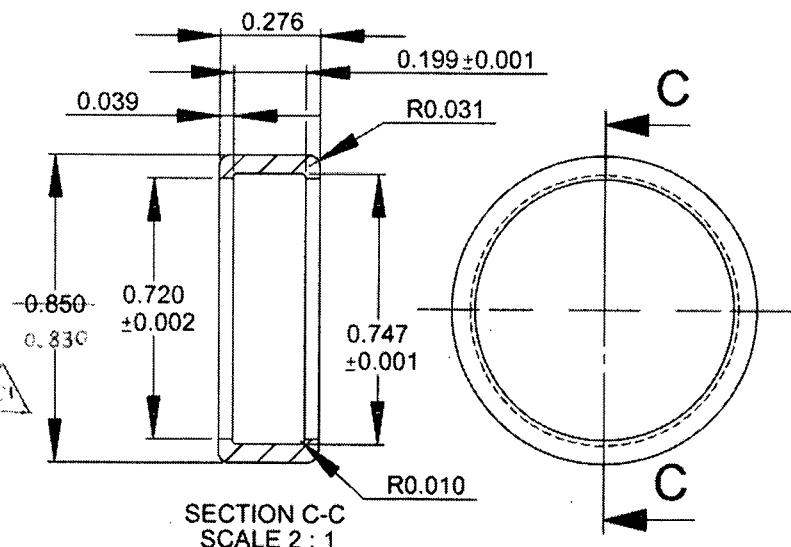
DETAIL A (2 : 1)

RELEASED  
04.03.01

DEO ATTACHED



DETAIL B (20 : 1)



D3183-9 CAP

- 1) MATERIAL: DELRIN ROD, Ø1.00  
(REF DART SPEC. M-DELRIN-R1.00)
- 2) TOLERANCES ARE PER DART QSI 018  
UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES

D3183-045 BEARING ASSEMBLY

- 1) ASSEMBLE D3183-5 BEARING AND D3183-9 CAP

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NOTE: Date & initial all entries

DRAWING NO. D3183	TITLE BRACKET ASSEMBLY	REV.C1	DART AEROSPACE LTD ENGINEERING ORDER	D.E.O. NO. D3183-C1-1	SHEET NO. SHEET 1 OF 1	SCALE NTS
DRAWN <i>gp</i>	CHECKED <i>JK</i>	MFG. APPR. <i>AM</i>	APPROVED <i>MP</i>	DE APPR. <i>MP</i>		
DATE 10.05.14	DATE 10.06.30	DATE 10.06.30	DATE 10/06/30	DATE 10/06/30	DATE 10/06/30	

D3183-5 BEARING

ADD POSSIBLE SUPPLIER: KML P/N 6800-ZZ

BASIC LOAD RATING REQUIREMENT: Cr = 1720 N (386 lb) MIN [DYNAMIC]  
Cor = 840 N (188 lb) MIN [STATIC]

REF PAR 10-012

*W0 10/8/05*

**RELEASED**  
2010-07-22  
*MP*

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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